

*Jpn. J. Ent.*, 63(2): 413–417. June 25, 1995

## *Pseudolygocoris punctulatus*, a New Genus and a New Species of the Miridae from Japan (Heteroptera)

Tomohide YASUNAGA

Biological Laboratory, Hokkaido University of Education  
Ainosato 5-3-1, Sapporo, 002 Japan

**Abstract** A new genus and species of the Miridae, *Pseudolygocoris punctulatus*, is described from Japan. This genus is characterized by the long erect hairs densely covering the dorsal surface, slender and linear antennae, distinct deep punctures on the pronotum, hairy tibiae that lack the spines and genital structure. The present new genus resembles a large Holarctic genus *Lygocoris* REUTER and a Nearctic *Tropidosteptes* UHLER.

**Key words:** Heteroptera; Miridae; new genus; new species; Japan.

Through the courtesy of Dr. M. HAYASHI of Saitama University and Mr. K. YOSHIKAWA of Kyushu University, I had an opportunity to examine several specimens of a unique mirine plant bug collected by light traps. These specimens were found to be an undescribed species that represents a new genus in the tribe Mirini of the subfamily Mirinae. They are similar in external appearance to certain species of the large Holarctic genus *Lygocoris* REUTER and the Nearctic *Tropidosteptes* UHLER. But the genital structure and several external characters significantly differ from the latter two genera, and, thus, I describe them as a new species in a new genus.

All measurements in the text are given in millimeters. Terminology of the male and female genitalia is mostly followed after KELTON (1955), SLATER (1950) and YASUNAGA (1991). Type specimens are all deposited in the collection of Biological Laboratory, Hokkaido University of Education, Sapporo.

### *Pseudolygocoris* gen. nov.

Type species: *Pseudolygocoris punctulatus* YASUNAGA.

Body elongate, subparallel-sided, moderate in size; dorsal surface densely clothed with brownish erect hairs. Head rather vertical; eyes almost contiguous to pronotal collar; vertex smooth, lacking mesal longitudinal sulcation, with a very weak and narrow basal transverse carina; tylus somewhat raised. Antenna slender and linear; segment I slightly longer than IV, shorter than head width; segment II about 3/4 as thick as I, shorter than pronotal width; segments

III and IV filiform. Rostrum rather broad, reaching hind coxa; segment II about as thick as antennal segment I.

Pronotum without lateral carination, deeply and distinctly punctate, densely clothed with brownish long erect hairs, somewhat constricted at lateral sides of calli; calli shiny, impunctate; collar impunctate, broad, broader than antennal segment I. Mesoscutum with a pair of oblique carina on each side; scutellum impunctate, rather tumid, clothed with long erect hairs. Hemelytra shiny, somewhat shagreened, uniformly clothed with brownish long erect hairs; clavus convex along claval vein; cuneus about twice as long as basal width. Legs long, densely provided with long erect hairs; tibiae lacking spines except at apices; hind tarsomere III longer than I or II.

Male genitalia (Fig. 2 A–E): Pygophore (9th abdominal segment) with a thumb-like process above base of left paramere (A). Parameres with long sensory hairs; left paramere triangularly produced basally (C); right paramere straight in shape (B). Vesica (D & E) composed of two membranous lobes, with a distinct long spicule at middle, a distinct median sclerite extending from gonoporal rim and a small basal sclerite accompanied with pointed teeth; ejaculatory duct expanded apically; gonoporal rim thick, distinct.

Female genitalia (F & G): Sclerotized ring weak, obliterated inward (F); posterior wall of bursa copulatrix with a wide median process and wide interramal lobes (G).

*Remarks.* This new genus is characterized by the dense long erect hairs on dorsum, slender and linear antennae, broad rostrum, anteriorly constricted and distinctly punctate pronotum, hairy tibiae that lacks the spines and structure of the genitalia. Being somewhat similar in general appearance to the genus *Lygocoris*, the new genus is easily distinguished from it by the dorsal vestiture and structure of the pronotum. The Nearctic genus *Tropidosteptes* UHLER also seems to be allied to *Pseudolygocoris*. Judging from the redescrptions and illustrations provided by KELTON (1980), however, the former differs from the latter in having the distinct basal transverse carina of the vertex, shorter antenna, trapeziform pronotum, and shorter pubescence on the dorsal surface.

*Pseudolygocoris punctulatus* sp. nov.

Body pale green in general coloration; hairs on dorsum pale brown to brown. Head pale brown, shining, darkened behind each eye; vertex 0.38 times as wide as head in ♂, 0.45 times in ♀; frons darkened medially; jugum and lorum widely darkened; tylus entirely blackish brown. Antennal segment I pale brown, uniformly with moderate setae, lacking spine-like setae; segments II–IV dark brown, without long setae; length of segments I–IV: 0.80, 2.63, 1.03,

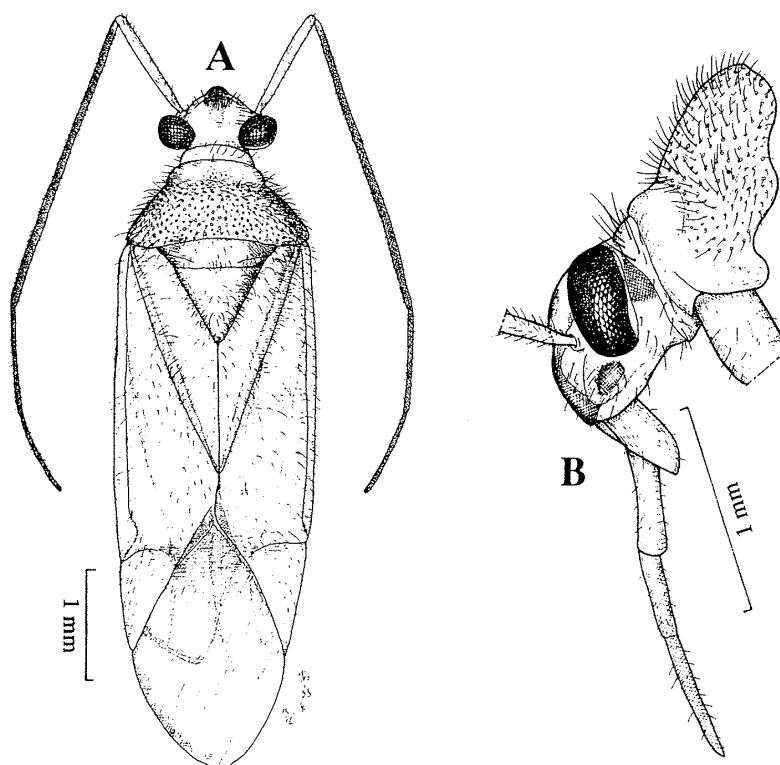


Fig. 1. Male of *Pseudolygocoris punctulatus*. A, Dorsal view of body; B, head and pronotum in left lateral view.

0.95 in ♂, 0.98, 2.40, 1.05, 0.88 in ♀. Rostrum pale brown; segments III and IV somewhat tinged with red; apical part of segment IV widely darkened; length of segments I–IV: 0.46, 0.49, 0.33, 0.63 in ♂, 0.44, 0.44, 0.38, 0.62 in ♀.

Pronotum pale green, sometimes yellowish anteriorly, with narrowly darkened posterolateral margin; collar and calli somewhat shagreened; thoracic side widely yellowish. Mesoscutum pale brown, shagreened, with a pair of dark oblique carinae; scutellum pale green, somewhat shagreened, not rugose or wrinkled; ostiolar peritreme not strongly projected. Hemelytra immaculate, uniformly shiny pale green, somewhat shagreened and impunctate; anal ridge dark brown; membrane somber pale brown, veins somewhat tinged with red or darkened. Legs pale green; apical parts of tibiae somewhat darkened; tarsi dark brown; length of hind femur, tibia and tarsus: 2.38, 2.78, 0.75 in ♂, 2.25, 2.83, 0.75 in ♀; length of hind tarsomeres I–III: 0.25, 0.21, 0.33 in ♂, 0.25, 0.23, 0.33 in ♀.

Abdomen pale green, sometimes brownish; terga and parameres darkened in ♂.

Genitalia (Fig. 2) as mentioned in the generic description.

*Dimensions.* ♂: Body length 5.70–6.00, head width 1.00, vertex width 0.38, pronotal length 0.94, pronotal width 1.59 and width across hemelytra

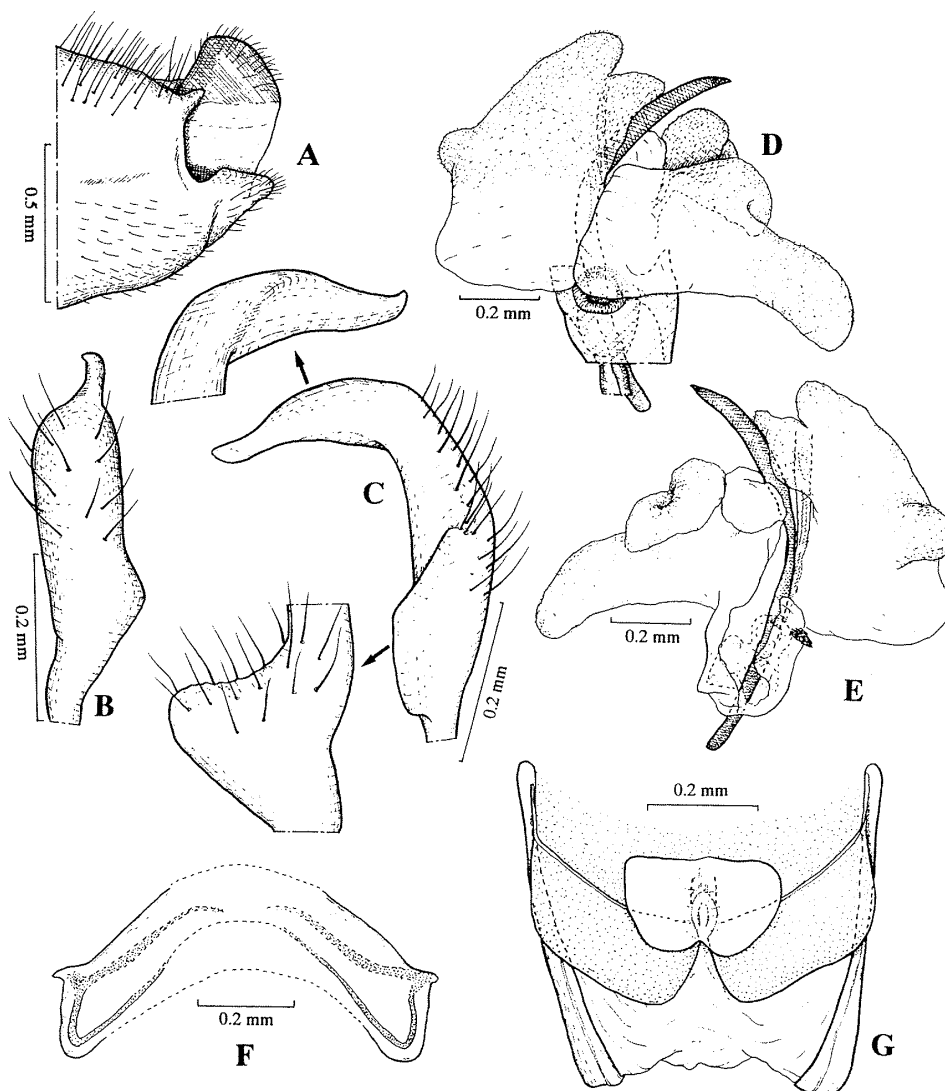


Fig. 2. Male (A–E) and female (F & G) genitalia of *Pseudolygocoris punctulatus*. A, Pygophore in left lateral view (without parameres); B, right paramere; C, left paramere; D, vesica in dorsal view; E, ditto in ventral view; F, sclerotized ring; G, posterior wall of bursa copulatrix.

1.83; ♀: 6.20, 1.04, 0.47, 1.00, 1.76 and 2.20, respectively.

**Holotype:** ♂, Chôjabaru, Geihoku-chô, Hiroshima Pref., Honshu, Japan, 10–11. vii. 1994, light trap, K. YOSHIZAWA. **Paratypes:** 2 ♀, Nihongi Pass, Saitama Pref., Honshu, 3. vii. 1984, light trap, M. HAYASHI *et al.*; 7 ♂, same data as for holotype.

**Distribution.** Japan (central and southwestern Honshu).

**Remarks.** This new species is easily recognized by the uniform greenish coloration and the peculiar structure of the pronotum as mentioned in the generic description. It has been occasionally attracted to light, but no other

information is available on its ecology.

### Acknowledgments

I greatly acknowledge Dr. S. MIYAMOTO, my constant advisor of Fukuoka City. I am also appreciative of Dr. M. HAYASHI of Biological Laboratory, Faculty of Education, Saitama University and Mr. S. YOSHIZAWA of Graduate School of Social and Cultural Studies, Kyushu University, for offering the materials.

### References

- KELTON, L. A., 1955. Genera and subgenera of *Lygus* complex (Hemiptera: Miridae). *Can. Ent.*, **87**: 277-301, figs. 1-136.
- 1980. The plant bugs of the Prairie Provinces of Canada (Heteroptera: Miridae). The Insect and Arachnids of Canada, Part 8. 408 pp., 279 figs. Agriculture Canada, Ottawa, Ontario.
- SLATER, J. A., 1950. An investigation of the female genitalia as taxonomic characters in the Miridae (Hemiptera). *Iowa St. Coll. J. Sci.*, **25**: 1-81.
- YASUNAGA, T., 1991. A revision of the plant bug genus *Lygocoris* REUTER from Japan, Part I (Heteroptera, Miridae, *Lygus*-complex). *Jpn. J. Ent.*, **59**: 435-448.

(Received November 16, 1994; Accepted January 30, 1995)

---